Package ‘ROpenCVLite’

July 17, 2022

Type Package
Title Helper Package for Installing OpenCV with R
Version 4.60.2
Date 2022-07-17
Maintainer Simon Garnier <garnier@njit.edu>
Description Installs 'OpenCV' for use by other packages. 'OpenCV' <https://opencv.org/> is library of programming functions mainly aimed at real-time computer vision. This 'Lite' version contains the stable base version of 'OpenCV' and does not contain any of its externally contributed modules.
License GPL-3
Imports utils, pkgbuild, parallel
SystemRequirements cmake, C++11
RoxygenNote 7.2.0
Biarch true
Encoding UTF-8
Suggests knitr, rmarkdown
VignetteBuilder knitr
URL https://swarm-lab.github.io/ROpenCVLite/.
https://github.com/swarm-lab/ROpenCVLite

BugReports https://github.com/swarm-lab/ROpenCVLite/issues
NeedsCompilation no

Author Simon Garnier [aut, cre] (<https://orcid.org/0000-0002-3886-3974>), Muschelli John [ctb]

Repository CRAN
Date/Publication 2022-07-17 20:40:05 UTC


**R topics documented:**

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### ROpenCVLite-package

**ROpenCVLite: A package to install OpenCV within R**

**Description**

This is a utility package that installs OpenCV within R for use by other packages. This Lite version does not contain any of the contributed modules of OpenCV.

**Author(s)**

Simon Garnier, <garnier@njit.edu>

**See Also**

Useful links:

- [https://swarm-lab.github.io/ROpenCVLite/](https://swarm-lab.github.io/ROpenCVLite/)
- [https://github.com/swarm-lab/ROpenCVLite](https://github.com/swarm-lab/ROpenCVLite)
- Report bugs at [https://github.com/swarm-lab/ROpenCVLite/issues](https://github.com/swarm-lab/ROpenCVLite/issues)

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### defaultOpenCVPath

**Default Install Location of OpenCV**

**Description**

This function returns the location at which OpenCV should be installed by default.

**Usage**

`defaultOpenCVPath()`
installOpenCV

Value
A character string.

Author(s)
Simon Garnier, <garnier@njit.edu>

Examples
defaultOpenCVPath()

installOpenCV

Description
This function attempts to download, compile and install OpenCV on the system. This process will take several minutes.

Usage
installOpenCV(path = defaultOpenCVPath(), batch = FALSE)

Arguments
path A character string indicating the location at which OpenCV should be installed. By default, it is the value returned by defaultOpenCVPath.
batch A boolean indicating whether to skip (TRUE) or not (FALSE, the default) the interactive installation dialog. This is useful when OpenCV needs to be installed in a non-interactive environment (e.g., during a batch installation on a server).

Value
A boolean.

Author(s)
Simon Garnier, <garnier@njit.edu>

Examples
## Not run:
installOpenCV()

## End(Not run)
**isCmakeInstalled**

*Check Cmake Installation*

**Description**
This function checks that Cmake is installed on the system.

**Usage**
```python
isCmakeInstalled()
```

**Value**
A boolean.

**Author(s)**
Simon Garnier, <garnier@njit.edu>

**Examples**
```python
isCmakeInstalled()
```

---

**isOpenCVInstalled**

*Check OpenCV Installation*

**Description**
This function checks that OpenCV is installed and accessible.

**Usage**
```python
isOpenCVInstalled()
```

**Value**
A boolean.

**Author(s)**
Simon Garnier, <garnier@njit.edu>

**Examples**
```python
isOpenCVInstalled()
```
**opencvConfig**

*C/C++ configuration options*

**Description**

This function returns the configuration options for compiling C/C++-based packages against OpenCV installed by ROpenCVLite.

**Usage**

```r
opencvConfig(output = "libs", arch = NULL)
```

**Arguments**

- `output` Either 'libs' for library configuration options or 'cflags' for C/C++ configuration flags.
- `arch` architecture relevant for Windows. If NULL, then R.version$arch will be used.

**Value**

A concatenated character string (with cat) of the configuration options.

**Author(s)**

Simon Garnier, <garnier@njit.edu>

**Examples**

```r
if (isOpenCVInstalled()) {
  opencvConfig()
  opencvConfig(output = "cflags")
  opencvConfig(arch = R.version$arch)
}
```

---

**OpenCVPath**

*Install Location of OpenCV*

**Description**

This function returns the location at which OpenCV is installed.

**Usage**

```r
OpenCVPath()
```
Value

A character string.

Author(s)

Simon Garnier, <garnier@njit.edu>

Examples

```r
## Not run:
OpenCVPath()

## End(Not run)
```

---

### opencvVersion

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Description

This function determines the version of OpenCV installed within R.

Usage

```r
opencvVersion()
```

Value

A character string.

Author(s)

Simon Garnier, <garnier@njit.edu>

Examples

```r
if (isOpenCVInstalled()) {
    opencvVersion()
}
```
removeOpenCV

Description
This function removes OpenCV from the system.

Usage
removeOpenCV()

Value
A boolean.

Author(s)
Simon Garnier, garnier@njit.edu

Examples
## Not run:
installOpenCV()

## End(Not run)
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